

AMENDMENTS

This section presents changes to the specification in a clean-unmarked format. A version with markings to show the changes made by the current amendment is provided after the remarks section.

In The Abstract:

Please replace the abstract beginning at page 32, line 2, with the abstract:

-- A method and apparatus are described for removing an initial gas from a gas-filled enclosure between the mask-protective device, such as a pellicle, and the patterned mask, such as a reticle, and adding a purge gas with a different composition. The gas-filled enclosure includes a vent for adding the purge gas to the enclosure and removing the initial gas from the enclosure. Adding and removing may be accomplished by using pressure, diffusion, or vacuum.--

In The Claims:

Presented below are the claims in a clean-unmarked format. Please amend claims 1, 3, 7, and 15 as indicated below.

Presentation Of The Claims In A Clean-Unmarked Format

(Amended) An apparatus comprising:

a mask protective device including a transparent portion that is transparent to a photolithography radiation;

a patterned mask including a pattern defined at least in part by an opaque portion that is opaque to the photolithography radiation;

a wall to connect the mask protective device with the patterned mask, the mask protective device, the patterned mask, and the wall defining a gas-filled enclosure; and

a vent to add a first gas to the enclosure and to remove a second gas from the enclosure, the first gas having a different gas phase composition than the second gas.

2. The apparatus of claim 1, wherein the mask protective device is attached to the patterned mask with an adhesive.
3. (Amended) The apparatus of claim 1, further comprising a gas source connected with the vent to add a first quantity of the first gas to the enclosure through the vent.
4. The apparatus of claim 1, wherein the vent includes a first enclosure opening defined by the wall and a second enclosure opening defined by the wall.
5. The apparatus of claim 4, wherein the wall has a first side and a second side opposite the first side, and wherein the first enclosure opening is in the first side and the second enclosure opening is in the second side.
6. The apparatus of claim 1, further comprising a radiation source to generate radiation with a different wavelength than the photolithography radiation to transmit radiation through the enclosure to increase the rate of diffusion of the gas in the enclosure.
7. (Amended) The apparatus of claim 1, further comprising a vacuum unit to reduce the total pressure inside the enclosure to below 500 millimeters of mercury.
8. The apparatus of claim 1, wherein the first gas that has a higher transmissivity for the photolithography radiation than the second gas.
9. The apparatus of claim 1, wherein the vent has a surface area on the wall that is at least five percent of a total surface area of the wall.

10. The apparatus of claim 1, wherein the vent comprises:

an inlet opening defined by the wall to add a first gas to the enclosure; and

an outlet opening defined by the wall to remove a second gas from the enclosure.

11. The apparatus of claim 10, further comprising:

a gas source having the first gas at a pressure that is higher than the pressure of the enclosure and connected with the inlet opening to add the first gas to the enclosure through the inlet opening; and

a gas destination having a volume at a pressure that is lower than the pressure of the first gas at the gas source and connected with the outlet opening to remove the second gas from the enclosure through the outlet opening.

12. The apparatus of claim 10, wherein the wall has a first side and a second side opposite the first side, and wherein the inlet opening is in the first side of the wall and the outlet opening is in the second side of the wall.

13. The apparatus of claim 10, wherein the inlet opening includes a plurality of discrete ports.

14. The apparatus of claim 10, wherein the first gas absorbs less of the photolithography radiation than the second gas.

15. (Amended) An apparatus comprising:

a mask protective device including a transparent portion that is transparent to a photolithography radiation;

a patterned mask including a pattern defined at least in part by an opaque portion that is opaque to the photolithography radiation;

a wall to connect the mask protective device with the patterned mask, wherein the mask protective device, the patterned mask, and the wall define an enclosure; and

a gas filling the enclosure, the gas having a transmissivity of the photolithography radiation greater than that of surrounding ambient air.

16. The apparatus of claim 15, wherein the mask protective device is attached to the patterned mask with an adhesive.
17. The apparatus of claim 15, wherein the gas filling the enclosure includes less than 10% molecular oxygen by volume.